Stacking-Force Master Role

Created at 2010/06/17

Introduction

In physical stacking feature, a set of switches connect through stack port form a stack switch. One of the switches will elect as master stack switch which control the operation of the stack. The master stack switch and other switches in the stack are stack members. They work together as a unified system and providing a single entity to the network.

Stack master Election and Force Master Role

The stack master is elected based on who has lowest value of following factor in order:
1. Priority (1~63)
2. Switch own MAC address

After master switch is determined, the remaining stack member will elect a backup master which follows the same procedure as stack master election.
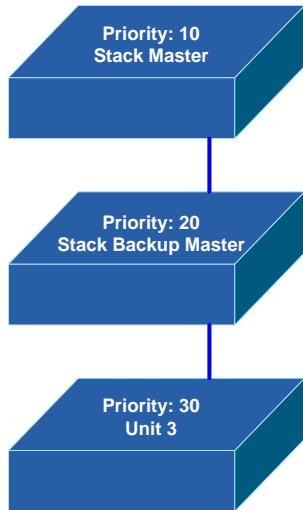
The feature of force master role alleviates the stack topology change and stack master change when new stack members join who has the priority lower than current stack master. With force master role enable, the current priority of stack master will be zero.
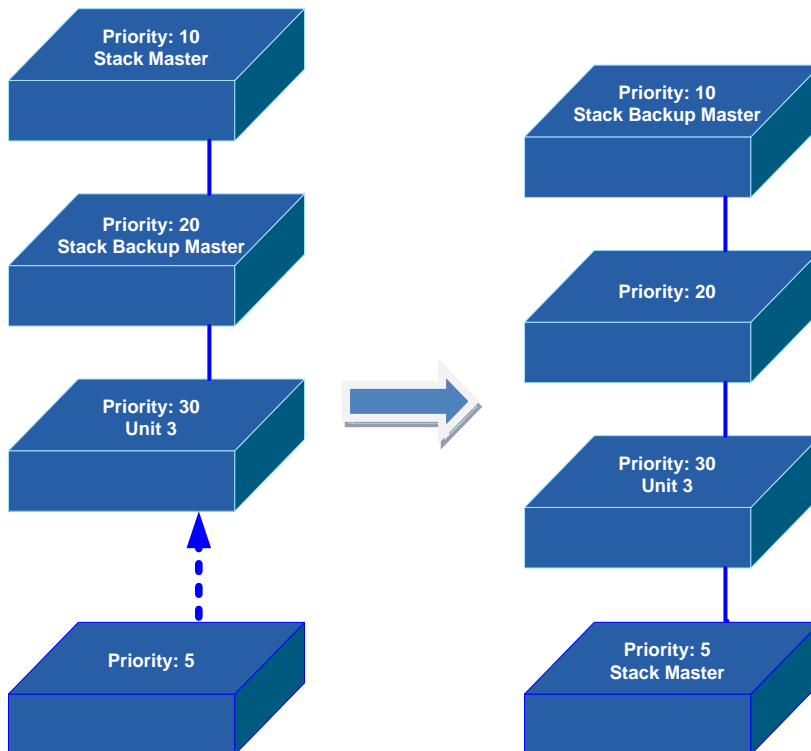
Step-by-Step

I.   Stack master Election

In Figure-1, existing switches stack with three units. It is configured with unit1 priority 10, unit2 priority 20, and unit3 priority 30.

Figure-1

When new member join with lower priority than current master, it will cause stack topology change and start new stack master election process. (Figure-02) The new added switch will be new stack master switch.
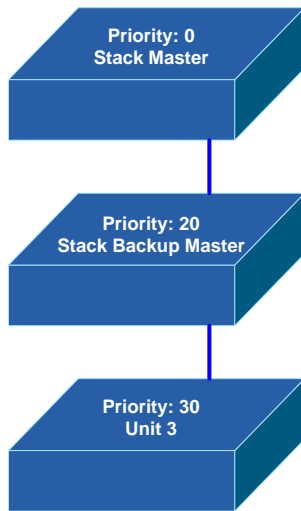
Figure-02

II. Stack master Election with Force Master Role enable

In Figure-03, existing switches stack with three units. It is configured with unit1 priority 10, unit2 priority 20, and unit3 priority 30. After enable force master
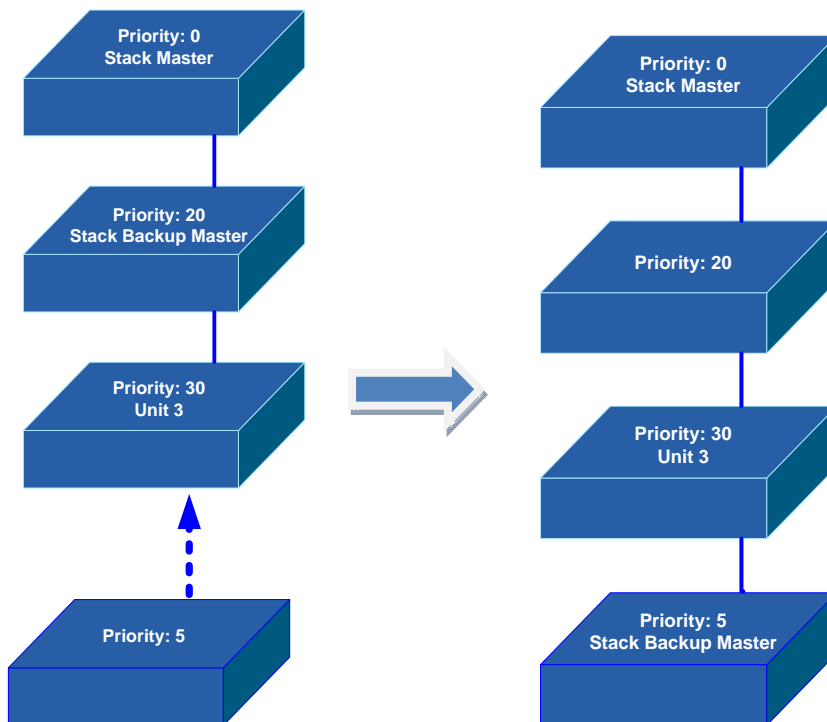
role, the priority of stack master will be 0.

Figure-03

When new member join with lower priority than configured priority of current master, the new member will not take over the stack master role. (Figure-04)

Figure-04

III. Configuration

The following procedure is required:

#	Command	Description
1	config stacking_mode enable	Used to configure the stacking mode.
2	config stacking force_master_role state enable	Used to configure force master role. The priority will be zero on master stack.

Reference

- This example is made by DGS-3400 series in firmware R2.70